



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

M

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 08/675,280      | 07/01/1996  | RICHARD M. WEBER     | 004578.0778         | 9382             |

7590

10/02/2002

JERRY W. MILLS  
BAKER & BOTTSSENTS  
2001 ROSS AVENUE  
DALLAS, TX 75201

EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 10/02/2002

49

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER OF  
PATENTS AND TRADEMARKS  
Washington, D.C. 20231

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 49

Application Number: 08/675,280  
Filing Date: 7/01/1996  
Appellant(s): Weber et al.

\_\_\_\_\_  
T. Murry Smith  
For Appellant

**MAILED**  
OCT 02 2002  
**GROUP 3700**

**EXAMINER'S ANSWER**

This is in response to appellant's brief on appeal filed 7/3/2002.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

Art Unit: 3743

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. The Amendment After Final (7/3/02) has been entered.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

The rejection of claims 25-27 and 30-31; 26 and 31; 1-2, 7-8, 17-20 and 28; and 21-22 stand or fall together stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

2,677,367

Telkes

5-1954

5,390,734

Voorhes et al.

2-1995

Art Unit: 3743

|           |          |        |
|-----------|----------|--------|
| 4,446,916 | Hayes    | 5-1984 |
| 4,341,262 | Alspaugh | 7-1982 |

**(10) Grounds of Rejection**

***Claim Rejections - 35 USC § 112***

Claims 26 and 31 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification fails to disclose the device of claims 26 and 31.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25-27 and 30-31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Telkes.

The patent of Telkes, in Figure 4, discloses applicant's claimed invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3743

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claim 1-2, 7-8, 17-22 and 28 are rejected under 35 U.S.C. § 103 as being unpatentable over Telkes in view of Voorhes et al. The patent of Telkes discloses all the claimed features of the invention with the exception of a portion of the enclosure/wall including a composite of highly thermally conductive fibers disposed in a matrix.

The patent of Voorhes et al., in at least Figure 11d, discloses that it is known to have a wall including a composite of highly thermally conductive graphite fibers disposed in a matrix for the purpose of increasing the thermal conductivity of the wall. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Telkes a portion of the enclosure/wall including a composite of highly thermally conductive graphite fibers

Art Unit: 3743

disposed in a matrix for the purpose of increasing the thermal conductivity of the wall as disclosed in Voorhes et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the specifically claimed phase change material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 21-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Telkes in view of Voorhes et al. as applied to claims 1-2, 7-8, 17-20 and 28 above, and further in view of Hayes or Alspaugh. The patent of Telkes discloses all the claimed features of the invention with the exception of the specifically claimed phase change material.

The patents of Hayes and Alspaugh discloses that it is well known to have a heat storage phase change material being a wax for the purpose of having a large thermal storage capacity per unit weight or volume of storage medium. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Telkes as modified, the phase change material being a wax for the purpose of having a large thermal storage capacity per unit weight or volume of storage medium as disclosed in Hayes or Alspaugh.

**(11) *Response to Argument***

Appellant's concerns directed toward the 35 U.S.C. 112, first paragraph rejection are not found persuasive. The originally filed specification fails to disclose the device of claims 26 and 31. Each and every element of claims 26 and 31 was not originally described in the specification

Art Unit: 3743

in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. First, the examined claims do not read on the embodiment of Figure 1 since this non-elected species is abandoned per the Board of Appeals Decision. Only the non-elected embodiment (i.e. Figure 1) on page 7 of applicants originally filed specification does it state that the PCM 7 partially or fully fills the remainder of the cavity. Nowhere in the originally filed specification does it state that the elected embodiments' (i.e. Figure 2) cavity can be fully filled with the PCM 27. However, Figure 3 of applicant's application does show a gap between the phase change medium (27) and the plate (21). Therefore, contrary to the device of claims 26 and 31, the phase change medium (27) as illustrated in Figure 3 **can** slide or move within the cavity (i.e. enclosed internal space). Also, when the phase change medium changes from a solid phase to a liquid phase, the phase change medium, again can and will flow or move within the cavity since nowhere in the originally filed specification does it state that the elected embodiments' (i.e. Figure 2) cavity can be fully filled with the PCM 27.

Appellant's concerns directed toward Telkes are not found persuasive. Telkes, **in Figure 4** and in column 4, lines 9-10 and 43-51, is believed to anticipate applicant's claimed invention since Telkes states, in column 4, line 10, glass is a material which has a suitable heat-conductivity and it therefore is read as a heat transfer material. Also, the matrix 14' is **coupled physically** (see **figure 4**) to the wall in view of Telkes stating the matrix "will not settle to the bottom". Matrix (14') is physically coupled (i.e. in contact with the container, see figure 4) and thermally (since the

Art Unit: 3743

matrix 14' is touching the container and glass is a thermal conductor as stated by Telkes in column 4, line 10 and as shown in figure 4) coupled to the container (10). Also, see column 2, lines 15-33 and column 4, lines 43-51 in Telkes. Appellant's arguments to the physical coupling of the matrix to the container are not commensurate in scope with the claims. Claims 25-27 and 30-31 do not recite or require any additional structure or material which physically couples the matrix to the container. Therefore, if the matrix touches the container wall it meets the limitation of physically coupled within the claims. Also, there is no written disclosure that teaches one how to physically couple the matrix to a container. Therefore, the Examiner believes touching meets the limitation of physical coupling. Therefore, since Telkes discloses the matrix (14') touching the wall (see figure 4 in Telkes) of the container, the matrix 14' in Telkes meets the limitation of physically coupled to the container within the claims.


In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

Art Unit: 3743


USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Voorhes et al., in at least Figure 11d, discloses that it is known to have a wall including a composite of highly thermally conductive graphite fibers disposed in a matrix for the purpose of increasing the thermal conductivity of the wall. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Telkes a portion of the enclosure/wall including a composite of highly thermally conductive graphite fibers disposed in a matrix for the purpose of increasing the thermal conductivity of the wall as disclosed in Voorhes et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the specifically claimed phase change material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.


For the above reasons, it is believed that the rejections should be sustained.

 CHRISTOPHER ATKINSON  
C.A.  
October 1, 2002

Respectfully submitted,

Conferees

Allan Flanigan  
  
Henry Bennett

  
Henry Bennett  
Supervisor, Patent Examiner  
Group 3700